



NTSB National Transportation Safety Board

Kentucky Airports: “The Welcome Mat” for your Community

The Role of Safety in
Aviation Promotion

**Earl F. Weener
Member, NTSB**



Kentucky Aviation Conference,
September 6, 2012

NTSB Mission

The NTSB is an independent US federal agency charged with determining the probable cause(s) of transportation accidents, making recommendations to prevent their recurrence, conducting special studies and investigations, and coordinating resources to assist victims and their families after an accident.

NTSB “Air Force”

- Built/Restored or Building/Restoring*
- **Sheryl Chappell:** Cessna 180 Floatplane
- **John Clark (EAA #603773):** Schreder RS-15, Vans RV-9A, Vans RV-12
- **Paul Cox:** Beech Bonanza G33, Vans RV-8a (Building)
- **Dennis Crider (EAA #1041658):** Vans RV-12
- **Dennis Diaz (EAA #1047382):** Vans RV-7a
- **Craig Hatch (EAA #659495):** Vans RV-8a, Cessna 140
- **Tom Haueter (EAA #251921):** 1943 Stearman, 1934 Lockheed Altair
- **Tim LeBaron (EAA #454270):** Piper J-3, Breezy (experimental), Pober Jr. Ace, 1941 Piper J5A, 1946 Cessna 120, 1975 Cessna 150, 1946 Ercoupe, Vans RV-4, 1947 Piper PA-11 Cub Special
- **Larry Lewis (EAA #751909):** Varga Kachina 2150A, Vans RV-8
- **Ron Price:** 1972 McCollough J2, Long EZ
- **Elliott Simpson:** Vans RV-7, Pietenpol Aircamper
- **Bob Swaim (EAA #221919):** 1974 Beech Sport, 1947 Cessna 140, 1967 Cessna 150, 1941 Stinson 10A, Kitfox
- * At least one airplane listed was built/restored or is in the process of being built/restored.

NTSB “Air Force”

- Own (Not Built/Restored)
- **Member Earl Weener (EAA #727429):** Beech Bonanza B36TC
- **Kurt Anderson:** Navion, Aeronca 11AC, Cessna 170A
- **Tim Burtch (EAA #1078661):** Cessna 172
- **John Brannen:** Sonerai IIL
- **Evan Byrne:** Cessna 172
- **Jill Demko:** PA-22-108 Piper Colt
- **J. Michael Duncan:** Beech Bonanza V35B
- **Kristi Dunks (EAA #689578):** 1955 Piper Super Cub
- **Catherine Gagne (EAA #646357):** 1956 Beech Bonanza G35
- **Craig Hatch:** Cessna 170a
- **Mike Huhn:** Cessna 182
- **Judge William Mullins:** Vans RV-8a
- **Jose Obregon:** Cessna 172
- **Jim Ritter:** Piper Comanche
- **Chris Stephens (EAA #689593):** Piper Comanche

Points

- General Aviation is essential for a healthy US aviation industry
- General Aviation health is dependent on perception of safety
- GA safety is dependent on airmen, aircraft, airports and airspace

Points

- General Aviation is essential for a healthy US aviation industry

Economic Impact of GA to USA

- Over 223,000 GA aircraft in US
- Contributes \$150 billion annually
- Employs 1,265,000 people
- Fly 25 million hours
- Carry 166 million passengers
- Uses 4,000 paved GA airports
- Two –thirds of all hours are for business purposes
- Primary training ground for airline pilots

Economic Impact of GA on KY

- 60 public use airports
- 7 FAA Part 139 airports
- Approximately 3,000 GA aircraft
- Over 6,100 pilots
- Approximately 1,400 GA jobs
- \$1.7 billion overall impact

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All GA Accidents (Part 91)

■ Total ■ Fatal

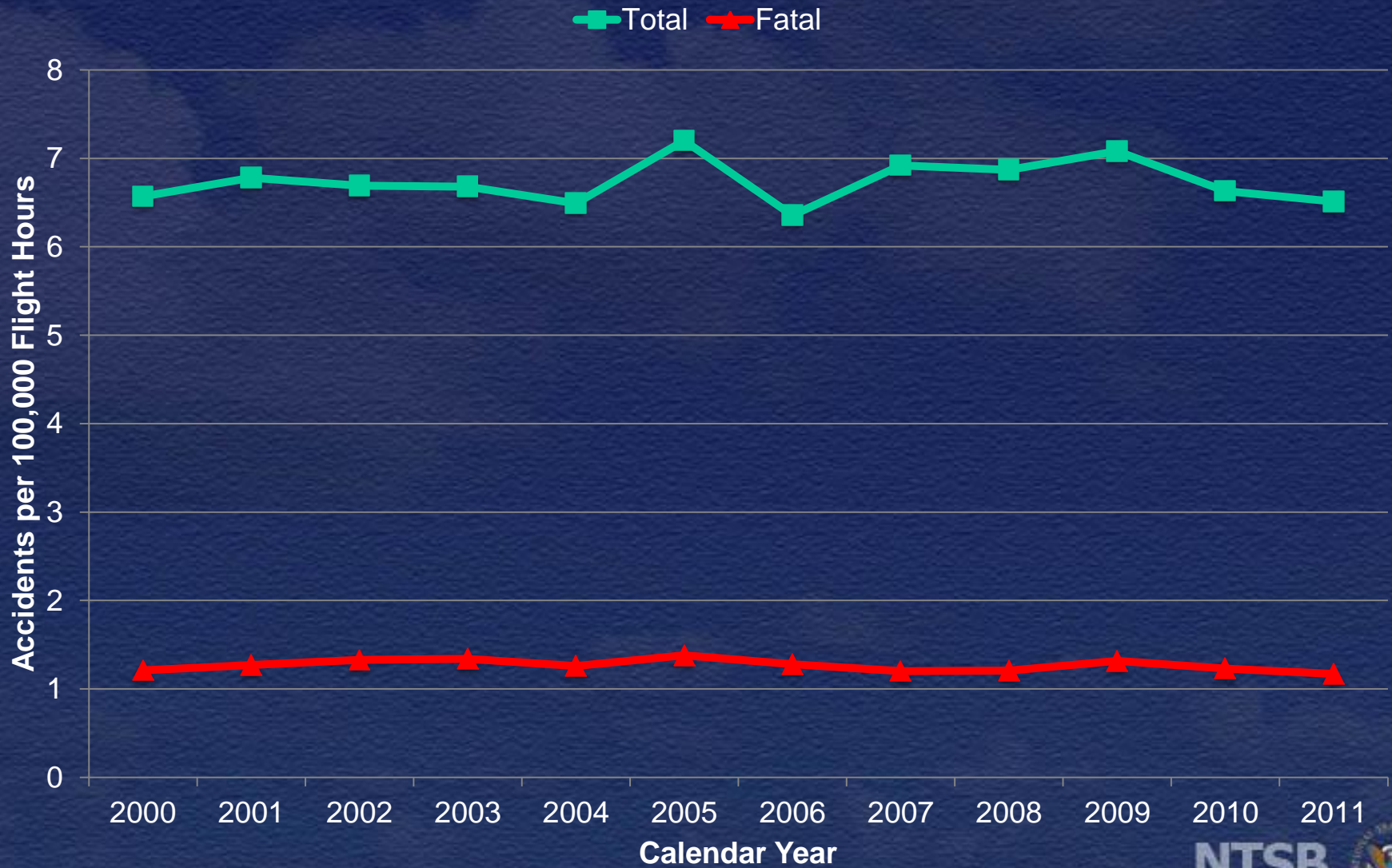


GA Accident-involved Fatalities

GA Accident-Involved Fatalities

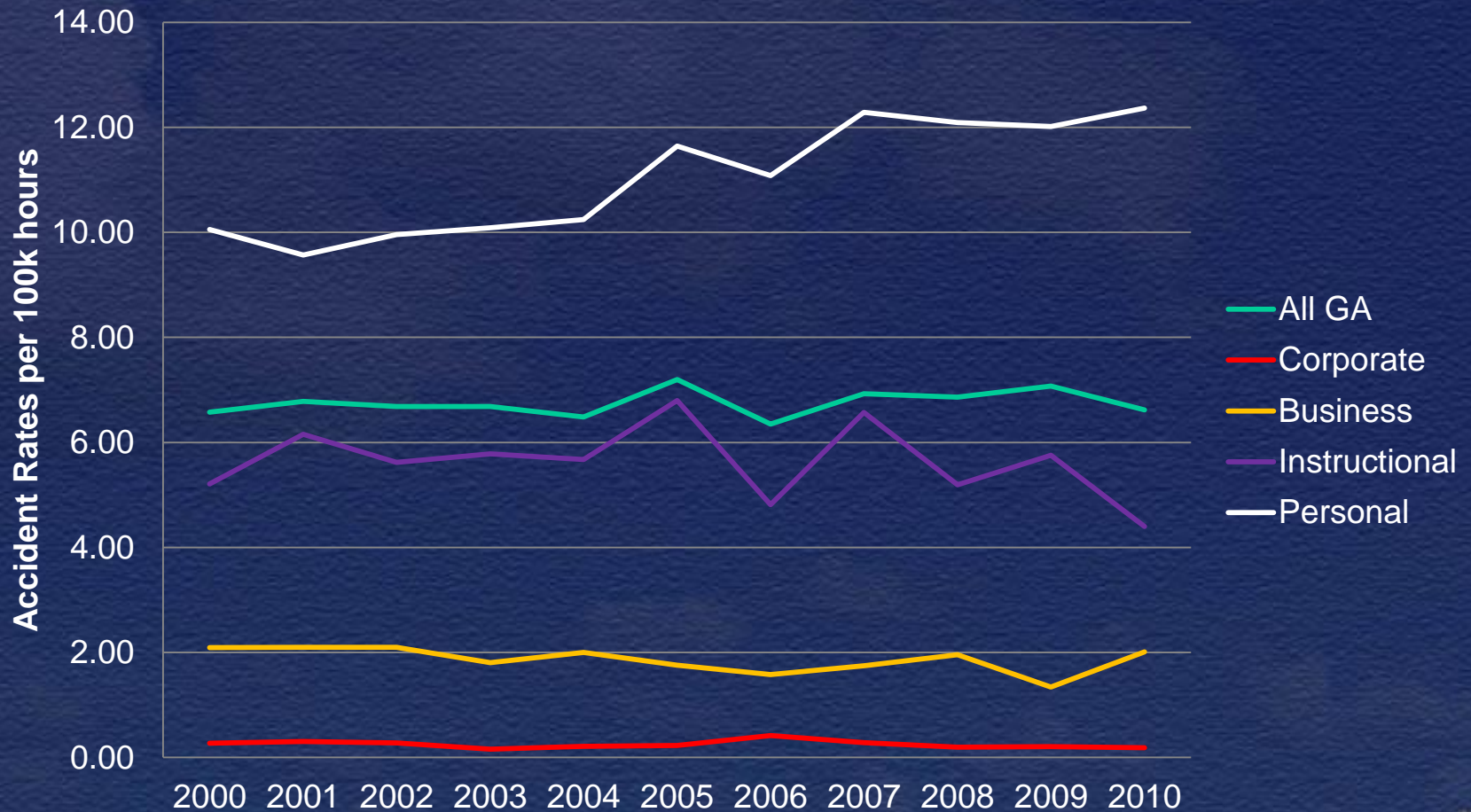


GA Accident Rates

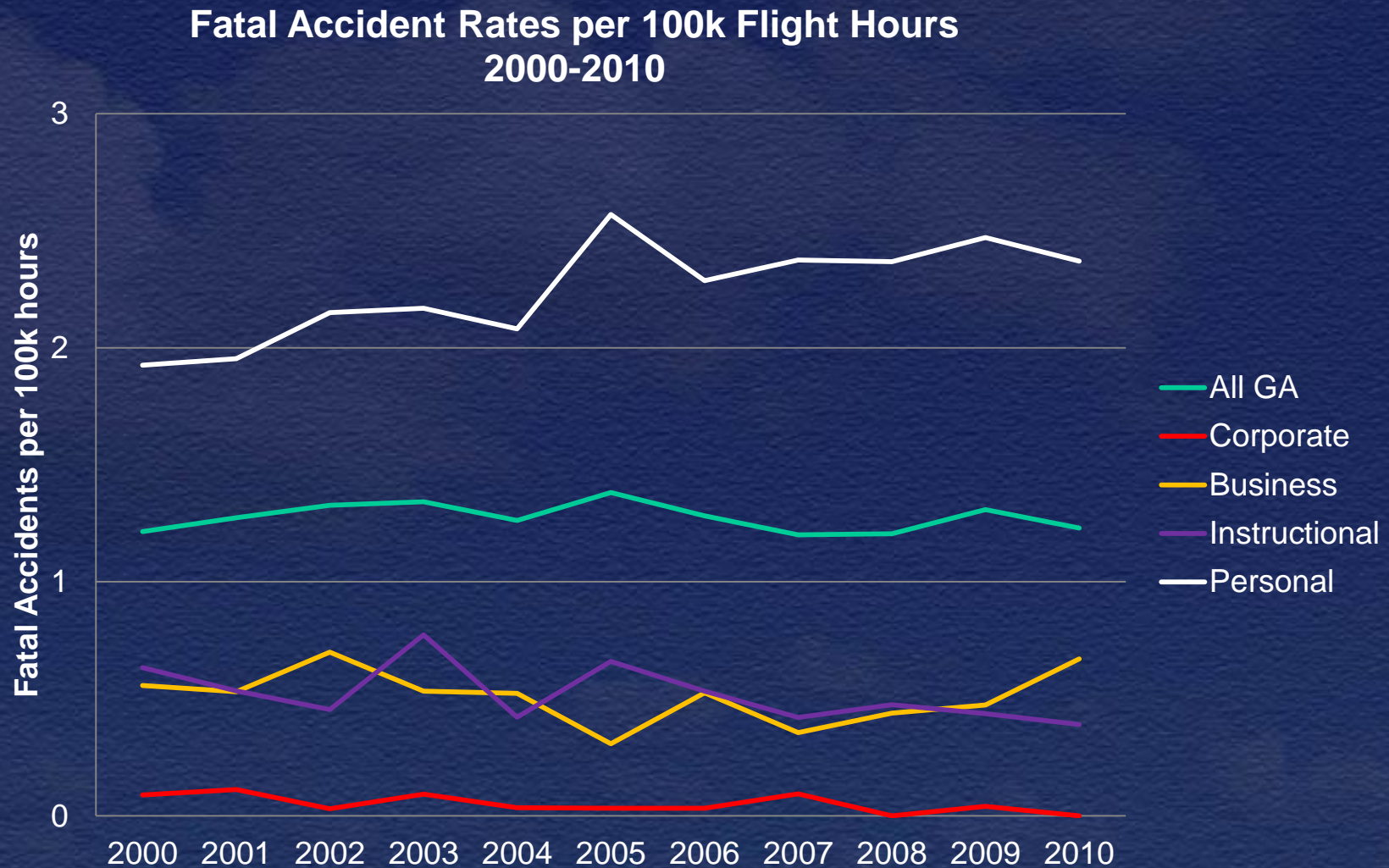


Accident Rates per 100k Flight Hours

Accident Rates per 100k Flight Hours
2000-2010



Fatal Accident Rates per 100k Flight Hours



Accident Rates

- Corporate
 - Accident rates approaching that of the airlines.
- Business
 - Total and fatal accidents show a modest decline, substantially below the overall GA accident rates.
- Instructional
 - Total accident rate is slightly below the average for all of GA, the fatal rate is substantially lower.
- Personal
 - Total and fatal accident rates have risen, both rates are substantially above the average of all GA flying.

Most Wanted List



10 issue areas

Reviewed annually

Objective -
bring focus
on need for
improvements

Why GA on the Most Wanted List?

- NTSB investigates approximately 1500 GA accidents per year
- Overall GA accident rate flat
 - Has not improved over the last ten years
 - Air carrier accident rate decreased almost 80%
- Personal flying accident rate
 - Increased 20% over last 10 years
 - Fatal rate increased 25% over that period
- **GA safety needs attention**

NTSB GA Outreach

- NTSB Most Wanted List
- Forum - GA Safety – Climbing to the Next Level
- Forum - GA Search & Rescue
- EAA AirVenture - Oshkosh
- Sun 'n Fun
- GA JSC Participation
- EAA Sport Aviation Magazine Article on NTSB
- AirVenture - Associations Presidents Meeting
Experimental Amateur Built Safety Study
- GA Seat Belt Study

Take safety messages to pilots and industry

Points

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NTSB

Driving Events in USA

- Pairing of inexperienced crewmembers
- Low-time crewmembers deferring to automation under stress

Alfred Sheinwold

“Learn all you can from the mistakes of others. You won’t have time to make them all yourself”

Douglas Adams

“Human beings, who are almost unique in having ability to learn from the experience of others, are also remarkable for their apparent disinclination to do so.”

Business Flying, 2007-2011

All accidents – Top three

- Abnormal runway contact
- Loss of Control – inflight
- System/component failure - Powerplant

Fatal Accidents



Instructional Flying, 2007-2011

All Accidents – Top Three

- Abnormal Runway Contact
- Loss of Control – In-Flight
- Loss of Control – On Ground

Fatal Accidents

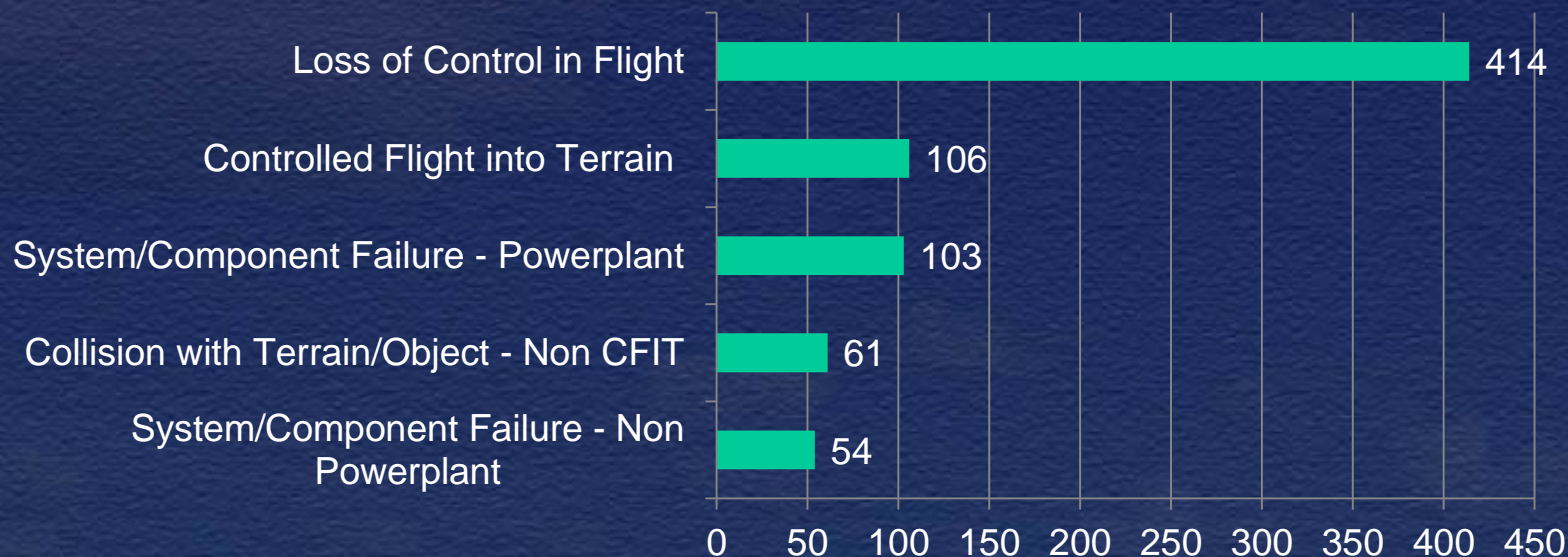


Personal Flying, 2007-2011

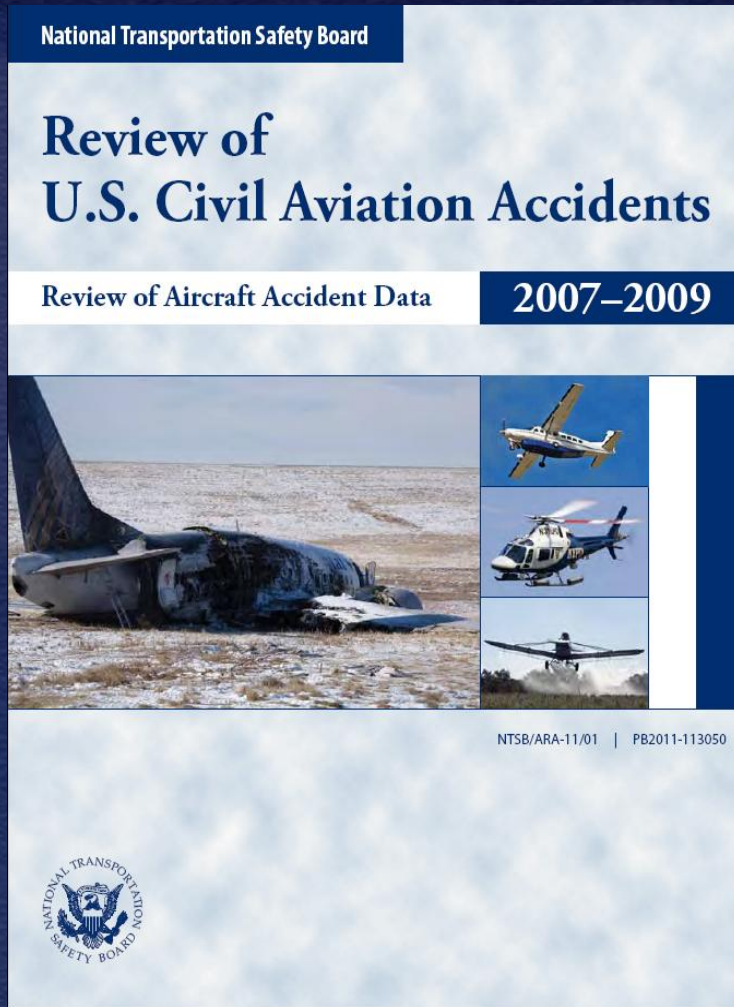
All Accidents – Top Three

- Loss of Control – In Flight
- System/Component Failure – Powerplant
- Loss of Control – On Ground

Fatal Accidents



You can try this at home



- NTSB accident files are on-line
- Many recent accident Dockets are on-line
 - Factual reports,
 - Interviews
 - Photographs
- www.ntsbt.gov

<http://www.ntsbt.gov/doclib/reports/2011/ARA1101.pdf>

Safety Forum Agenda

- **Panel 1 – Safety Priorities**
 - NASA, GA-JSC, FAA
- **Panel 2 – Safety Programs**
 - ABS, AVEMCO Insurance, AOPA, FAA (Wings Program)
- **Panel 3 – Role of the Flight Instructor**
 - SAFE, NAFI, FAA, UND, IAFTP
- **Panel 4 – Content, Quality & Consistency of Pilot Training**
 - FAA, ASA, Red Bird Simulators, SAFE, ERAU

Safety Forum Agenda (cont'd)

- **Panel 5 – Weather Related Decision-Making**
 - FAA, Baron Services, ERAU, CAMI, Independent Aviation Safety Speaker, FAA
- **Panel 6 – Aircraft Maintenance and Modification**
 - FAA, EAA/VAA, Middle TSU, PAMA
- **Panel 7 – New Aircraft Design and Certification**
 - FAA, GAMA, Cirrus, AOPA, ICON Aircraft
- **Panel 8 – Advanced Avionics and Handhelds**
 - GAMA, AOPA, NASA, ERAU



GENERAL AVIATION SAFETY

Climbing to the Next Level

June 19-20, 2012

NTSB Most Wanted List

- General Aviation Safety
- Runway Safety
- Bus Occupant Safety
- Safety Management Systems
- Recorders
- Teen Driver Safety
- Human Fatigue
- Alcohol-Impaired Driving
- Motorcycle Safety
- Pilot and Air Traffic Controller Professionalism



Defining Fatal Accident Events

- Loss of Control in Flight
- System/Component Failure – Powerplant
- Controlled Flight into Terrain
- Collision with Terrain/Object – Non-CFIT
- System/Component Failure – Non Powerplant